ENGINEERING AND SCIENCES KIMBERLY EARNSHAW, COORDINATOR 757-1009
UPDATED: 11 APRIL 2000
AIRWORTHINESS TRAINING
BASIC ACOUSTICS
CLASS DESK ORIENTATION
CONSTRUCTING PERSUASIVE PROPOSALS
CREATING WINNING RDT&E MARKETING PLANS
MARKETING YOUR R&D PROJECT IN WASHINGTON, DC
PARTIAL DIFFERENTIAL EQUATIONS REFRESHER
SONAR ACOUSTICS
STATISTICS AND PROBABILITY REFRESHER
UNDERWATER ACOUSTICS
WEIBULL / LOG NORMAL ANALYSIS WORKSHOP

COURSE TITLE:	**AIRWORTHINESS TRAINING**	
VENDOR:	Airworthiness/Flight Clearance AIR – 4.3P Patuxent River, MD 20670	
LOCATION:	Paxtuxent River, MD	
COURSE CODE: 476268	**DATE:** 27 July 00	**NOMINATION DEADLINE:** 20 June 00
TIME:	8:00-3:30	
DESCRIPTION:	This course provides Project Officers, Project Managers, Project Engineers, and other personnel a working knowledge and a comprehensive understanding of the Airworthiness process. The course will define flight clearance requirements and what a flight clearance can authorize. This course will also explain the Naval Instruction that governs the Flight Clearance process: NAVAIRINST 13034.1A.	
OBJECTIVE:	At the completion of this course the participants should be able to: • Understand Airworthiness policies and procedures. • Know when a flight clearance is required. • Draft a flight clearance request. • Understand how to define data requirements. • Understand formal engineering airworthiness review process and time requirements. • Know the standard seven part message format for requests and flight clearances. • Know the NAVAIR/flight clearance points of contact.	
AUDIENCE:	Officers, Engineers, Technicians, and Managers who may be required to review flight clearances and flight clearance requests.	
NOMINATIONS:	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS).	
COST:	$150	

COURSE TITLE:	**BASIC ACOUSTICS**	
VENDOR:	Alan D. Stuart P.O. Box 393 Lemont, PA 16851	
LOCATION:	Employee Development Center, Building #2189	
COURSE CODES: 481972	**DATES:** 30 May – 02 Jun 00	**NOMINATION DEADLINES:** 28 April 00
TIME:	8:00 – 11:30 a.m.	
DESCRIPTION:	This course provides an introductory overview of acoustics. Elements covered will include: acoustic waves in fluids and structures; plane and spherical waves; acoustic sensors and sources; wave and radiation impedance concepts; reference levels and dB scale; sound reflection, transmission, and refraction; Snell's law and coincident effect; sound radiation, source level and radiated power; directivity of simple sound sources and receivers; and acoustics filters, Helmholtz resonators and ducts.	
OBJECTIVE:	Emphasis is placed on illustrating phenomena and principles through demonstrations and examples from common experience. Topics are presented with a minimum of mathematics.	
NOMINATIONS:	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS).	
COST:	$800	

COURSE TITLE:	**CLASS DESK ORIENTATION**	
VENDOR:	AIR 4.1 Naval Air Systems Command Patuxent River, Maryland 20670	
LOCATION:	Employee Development Center, Building #2189	
COURSE CODE: 478508	**DATE:** 31 July -03 August 00	**NOMINATION DEADLINE:** 11 July 00
TIME:	0800-1530	
DESCRIPTION:	This course provides a description of the roles and responsibilities for personnel assigned as Assistant Program Manager for Systems Engineering (Class Desk) within a competency aligned organization, and the role of systems engineering in acquisition. Modules covering associated processes are presented including decision milestones, the POM and budget, product integrity, design reviews, software management, test and evaluation, airworthiness, grounding bulletins and red stripes, engineering investigations and hazard material reports, technical directives and bulletins, risk management, cost and earned value management, configuration management, air vehicle engineering, NAVAIR initiatives, and acquisition process overview.	
OBJECTIVE:	To provide basic skills and knowledge to enhance the performance of personnel newly assigned as assistant program manager for systems engineering (Class Desk).	
AUDIENCE:	Personnel newly assigned to class desks and supporting government and contract personnel. Other employees are welcome subject to space availability.	
PREREQUISITE:	None	
LENGTH:	3 ½ Days	
NOMINATIONS:	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS).	
COST:	None	

COURSE TITLE:	**CONSTRUCTING PERSUASIVE PROPOSALS**	
VENDOR:	Marconi Systems Technology 2361 Jefferson Davis Highway, Suite 706 Arlington, VA 22202	
LOCATION:	Employee Development Center, Building #2189	
COURSE CODE: 475492	**DATE:** 07 June 00	**NOMINATION DEADLINE:** 05 May 00
TIME:	0800-1130	
DESCRIPTION:	Constructing proposals that sell ideas is a matter of knowing what to say and how to say it. This class/workshop answers those questions with illustrations of both good and bad and provides a structure for developing proposals that garner attention and support from within the Federal government bureaucracy. Further, developing proposals can be time consuming, costly and highly iterative. This course provides simple and efficient, step-by-step process to minimize the time and effort of developing proposals.	
OBJECTIVE:	To provide the tools and establish an understanding of how to develop an effective proposal.	
AUDIENCE:	Anyone including engineers, scientists, and present/prospective program managers.	
NOMINATIONS:	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS).	
COST:	$100 per person	
METHOD OF PAYMENT:	Vendor accepts GCPC (Governmentwide Commercial Purchase Card). EMPLOYEE must circle "V" in Block 22, under "Payment" on the Initial Training Request Form.	

COURSE TITLE:	**CREATING WINNING RDT&E MARKETING PLANS**	
VENDOR:	Marconi Systems Technology 2361 Jefferson Davis Highway, Suite 706 Arlington, Virginia 22202	
LOCATION:	Employee Development Center, Building #2189	
COURSE CODE: 475496	**DATE:** 07 June 00	**NOMINATION DEADLINE:** 05 May 00
TIME:	1230-1600	
DESCRIPTION:	A well-conceived marketing plan saves time, effort and money over the course of any RDT&E marketing effort and can dramatically improve the success in obtaining funds. This seminar/workshop takes participants step-by-step through the elements of a marketing plan and demonstrates how to develop a powerful and focused plan. This is specifically directed toward marketing within the Federal Government bureaucracy.	
OBJECTIVE:	To provide the skills and establish an understanding of how to develop an effective marketing plan.	
AUDIENCE:	Anyone including engineers, scientists, and present/prospective program managers.	
NOMINATIONS:	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact. The training contact forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS).	
COST:	$ 100 per person	
METHOD OF PAYMENT:	Vendor accepts GCPC (Governmentwide Commercial Purchase Card). EMPLOYEE must circle "V" in Block 22, under "Payment" on the Initial Training Request Form.	

COURSE TITLE:	**MARKETING YOUR R&D PROJECT IN WASHINGTON, DC**	
VENDOR:	Marconi Systems Technology 2361 Jefferson Davis Highway, Suite 706 Arlington, Virginia 22202	
LOCATION:	Employee Development Center, Building #2189	
COURSE CODE: 475488	**DATE:** 06 June 00	**NOMINATION DEADLINE:** 05 May 00
TIME:	0800-1600	
DESCRIPTION:	This non-theoretical, pragmatically oriented, one day class covers the topics necessary to effectively gain support in Washington, DC to get funding for your R&D projects. Topics include the R&D structure; relevant organizations in obtaining R&D funding; organizational interrelationships and their significance; the political environment and its role; the importance of requirements and where to find them; establishing credibility; determining personality styles and how to deal with them; techniques of persuasion; finding a champion; interpreting what is really being said; presenting your project for maximum impact; the different types of sponsors and how to deal with them; techniques for protecting funds that have been promised; and guidelines to help you avoid getting into trouble with the bureaucracy.	
OBJECTIVE:	To provide the tools and establish an understanding of how to market R&D projects to the Navy in the Washington, DC arena.	
AUDIENCE:	Anyone including engineers, scientists, and present/prospective program managers who need to secure funding for their R&D projects.	
NOMINATIONS:	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact. The training contact forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS).	
COST:	$ 200 per person	
METHOD OF PAYMENT:	Vendor accepts GCPC (Governmentwide Commercial Purchase Card). EMPLOYEE must circle "V" in Block 22, under "Payment" on the Initial Training Request Form.	

COURSE TITLE:	**PARTIAL DIFFERENTIAL EQUATIONS REFRESHER**	
VENDOR:	Alan D. Stuart P.O. Box 393 Lemont, PA 16851	
LOCATION:	Patuxent River, Building #1489	
COURSE CODES: 481971	**DATES:** 26-30 June 00	**NOMINATION DEADLINES:** 26 May 00
TIME:	12:30 – 4:00 p.m.	
DESCRIPTION:	This refresher course will cover the areas of ordinary differential equations; boundary value problems; Fourier and other orthogonal series; separation of variables, Eigenfunction expansions; vector analysis and Green's function; integral transform techniques; and engineering applications including structural vibrations, model analysis, heat transfer; fluids dynamics; sound waves, and wave guides.	
OBJECTIVE:	Emphasis is placed on how to use math as a tool to set up and interpret engineering problems. Students review representative problems and discuss their results in class.	
AUDIENCE:	This course is intended for those taking technical classes, pursuing either graduate or undergraduate studies, or just desiring a refresher.	
NOMINATIONS:	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS).	
COST:	$800	

COURSE TITLE:	**SONAR ACOUSTICS**	
VENDOR:	Alan D. Stuart P.O. Box 393 Lemont, PA 16851	
LOCATION:	Employee Development Center, Building #2189	
COURSE CODES: 481973	**DATES:** 30 May – 02 June 00	**NOMINATION DEADLINES:** 28 April 00
TIME:	12:30 – 4:00 p.m.	
DESCRIPTION:	This course provides an introductory overview of sonar acoustics. Elements covered will include: passive and active sonar equations; passive and active signal processing; detection threshold concepts; ambient, self and radiated noise characteristics; directivity index and array gain; figure of merit and range considerations; range-Doppler representation, ambiguity function; reverberation: volume, surface and bottom; target strength, signature and coatings; sonar arrays: beamforming, bearing angle and sonobuoy considerations.	
OBJECTIVE:	Emphasis is placed on illustrating phenomena and principles through demonstrations and examples from common experience. Topics are presented with a minimum of mathematics.	
NOMINATIONS:	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS).	
COST:	$800	

COURSE TITLE:	**STATISTICS AND PROBABILITY REFRESHER**	
VENDOR:	Alan D. Stuart P.O. Box 393 Lemont, PA 16851	
LOCATION:	Patuxent River, Building #1489	
COURSE CODE: 481970	**DATE:** 26-30 June 00	**NOMINATION DEADLINE:** 26 May 00
TIME:	8:00 – 11:30 a.m.	
DESCRIPTION:	This refresher course will cover the areas of frequency and probability distributions; means, variances and standard deviations; discrete and continuous distribution models: binomial, normal, exponential, weibull, etc.; sampling techniques and sample size; curve fitting of data, goodness-of-fit; regression and correlation analysis; and engineering applications including tolerances, reliability, signal processing, and design experiments.	
OBJECTIVE:	Emphasis is placed on how to use math as a tool to set up and interpret engineering problems. Students review representative problems and discuss their results in class.	
AUDIENCE:	This course is intended for those taking technical classes, pursuing either graduate or undergraduate studies, or just desiring a refresher.	
NOMINATIONS:	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS).	
COST:	$800	

COURSE TITLE:	**UNDERWATER ACOUSTICS**	
VENDOR:	Alan D. Stuart P.O. Box 393 Lemont, PA 16851	
LOCATION:	Patuxent River, Building #1489	
COURSE CODE: 481974	**DATE:** 21-25 August 00	**NOMINATION DEADLINE:** 21 July 00
TIME:	8:00 – 11:30 a.m.	
DESCRIPTION:	This course provides an introductory overview of underwater acoustics. Elements covered will include: acoustic waves in sea water; sound velocity profiles; underwater sound propagation, acoustic rays; cavitation threshold, absorption phenomena; ambient noise levels and spectrum; reflection, refraction and scattering; convergence zones; sound channels: SOFAR, RAP; Surface effects: scattering, Lloyd mirror effect; bottom effects: scattering, lateral waves; and shallow water considerations.	
OBJECTIVE:	Emphasis is placed on illustrating phenomena and principles through demonstrations and examples from common experience. Topics are presented with a minimum of mathematics.	
NOMINATIONS:	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS).	
COST:	$800	

COURSE TITLE:	**WEIBULL / LOG NORMAL ANALYSIS WORKSHOP**	
VENDOR:	Dr. Robert Abernethy 536 Oyster Road, North Palm Beach, FL 33408-4328	
LOCATION:	Employee Development Center, Building #2189	
COURSE CODE: 475615	**DATE:** 05–08 June 00	**NOMINATION DEADLINE:** 01 May 00
TIME:	8:00 a.m.-4:00 p.m.	
DESCRIPTION:	This course covers basic Weibull analysis, intensive treatment of The New Weibull Handbook, the four SuperSMITH including hands-on computer tutorial, plus an understanding of system simulation for building system models for reliability, maintainability, safety, spare parts, logistics analysis and warranty-guarantee costs.	
OBJECTIVE:	Upon completion of this course students will be able to : • Solve problems using WinSMITH (Windows) or WeibullSMITH (DOS), VISUALSMITH, BiWiebullSMITH & MonteCarloSMITH	
AUDIENCE:	This four-day intensive instructional and hands-on workshop is intended for engineers involved with engine test, evaluation and analysis	
NOMINATIONS:	Nominations must be submitted through use of the Initial Training Request Form, NDW-NAWCAD 12410/28. The completed form, with appropriate signatures, is given to the activity training contact/Customer Service Team. The training contact/CST forwards the request to the Workforce Relations and Development Division via the Training Information Processing System (TIPS).	
COST:	$950 (Based on 20 Attendees)	